

## PREVENTION OF RETINAL INIURY AND DEGENERATION BY SPECIFIC FACTORS

This application claims priority of United States Patent Application Serial No.  
5 08/334,859 filed November 4, 1994, which is a continuation of United States Patent  
Application Serial No. 07/836,090 filed February 14, 1992, which is a  
continuation-in-part of United States Patent Application Serial No. 07/691,612 filed  
April 25, 1991, which is a continuation-in-part of United States Patent Application  
Serial No. 07/570,657 filed August 20, 1990 and issued as United States Patent No.  
10 5,229,500, which is a continuation-in-part of Serial No. 07/400,591 filed on August  
30, 1989 and issued as United States Patent No. 5,180,820.

### INTRODUCTION

15 The present invention relates to a method of preventing or delaying retinal  
degeneration caused by exposure to light or other environmental trauma, or by any  
pathological condition wherein death or injury of retinal neurons or photoreceptors  
occurs. It is based on the discovery that specific survival promoting factors, when  
introduced into the living mammalian eye, prevent damage and degeneration of  
20 photoreceptors caused by light and on the further discovery that such factors can  
delay photoreceptor degeneration associated with inherited diseases of the retina.

### BACKGROUND OF THE INVENTION

25 Trophic factors play a major role in neuronal survival and growth during  
development, in addition to the maintenance of differentiated neurons. Such  
factors also appear to play a role in the survival and regeneration of injured  
neurons in the central as well as in the peripheral nervous system.

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